

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer system for selecting and organizing individual test cases for use in testing a computer program to ensure that the program processes as intended, the system comprising:

one or more program modules storing a plurality of available test cases, each comprising a set of instructions for testing a feature of the computer program ~~through a language and format independent interface;~~

a harness client comprising a set of instructions that (i) receives user input specifying one or more filenames corresponding to the one or more program modules, (ii) initiates execution of a connector to scan for and discover the plurality of available test cases that are stored in the one or more program modules and to organize the plurality of available test cases into a test case hierarchy, and (iii) receives user input indicating which of the plurality of available test cases in the test case hierarchy are selected test cases to be executed on the computer program;

a harness comprising a set of instructions that (i) receives the test case hierarchy including the one or more program modules storing the plurality of test cases, (ii) traverses the test case hierarchy, and (iii) executes each of the selected test cases through using the corresponding a language and format independent interface by implementing an architecture that defines a means for accessing one or more resources over a network ~~of the selected test case to ensure that the computer program processes as intended;~~

the connector, initiatable by the harness client, and comprising a set of instructions that (i) scans for the plurality of available test cases stored in the one or more program modules, (ii) organizes the plurality of available test cases into the test case hierarchy by extracting the plurality of available test cases from the one or more program modules, and (iii) selectively integrates the language and format independent interface in the test case hierarchy such that an interface between the test case hierarchy and the

harness can access the one or more available test cases using the architecture regardless of the language or format in which the one or more available test cases were written; and a processor for executing each selected test case, the harness, the harness client, and the connector, such that a first test case written in a first language and a second test case written in a second, different language are each executable by the processor through ~~because of~~ the language and format independent interface.

2. (Canceled)

3. (Currently Amended) A computer system as recited in claim 12, wherein the architecture is COM technology.

4. (Currently Amended) In a computer system that includes a processor, a computer program to be tested, a program module storing a plurality of test cases of interest for use in testing the computer program, a harness for executing on the computer program individual selected test cases of the plurality of test cases of interest, a harness client for receiving user input, and a connector for interfacing between the a plurality of test cases of interest and the harness, a method for testing the computer program to determine whether the computer program processes as intended, the method comprising the acts of:

the harness client (i) receiving user input that specifies one or more filenames to identify the program module, (ii) initiates execution of the connector to scan for and discover the plurality of test cases of interest that are stored in the program module and to organize the plurality of test cases of interest into a test case, and (iii) receives user input indicating that at least two of the plurality of test cases of interest in the test case hierarchy are the selected test cases to be executed on the computer program;

the connector scanning the plurality of test cases of interest stored in the program module, ~~each test case having a language and format independent interface for executing the test case on the computer program regardless of the language or format used to develop the test case, wherein the connector is initiatable by the harness client, wherein~~ the connector uses COM technology to expose an extraction component class that implements methods that are called by the harness client to cause the connector to scan for and organize the plurality of test cases into the test case hierarchy;

the connector extracting the plurality of test cases of interest from the program module using the extraction component class;

the connector using the extraction component class to organizeing the plurality of test cases of interest into the test case hierarchy, wherein the test case hierarchy comprises a plurality of objects including an object for the test module and an object for each of the test modules in the hierarchy;

the connector interfacing the harness with the ~~selected test case~~ test case hierarchy by exposing a test case component class that uses COM technology, wherein the harness utilizescalls methods of the test case component class the interfacing allows the harness to recognize and executereceive the selected test case test case hierarchy

regardless of the language or format in which the plurality of test cases of interest was developed; and

the harness traversing the test case hierarchy and executing each of the selected test cases to test the computer program, such that a first test case written in a first language and a second test case written in a second, different language are each executable by the harness because of the language and format independent interface.

5-6. (Canceled)

7. (Previously Presented) A method as recited in claim 4, wherein the method further includes the step for determining whether one or more of the plurality of test cases of interest are identified as being deselected, wherein the harness traversing the test case hierarchy and executing each of the selected test cases includes not executing a deselected test case on the computer program.

8-9. (Canceled)

10. (Previously Presented) A method as recited in claim 7, wherein the user input received by the harness includes input from the user indicating selection of the first test suite, and in response to the user input, the harness indicating the at least two of the plurality of test cases that comprise the first test suite as selected cases, and excluding any other of the plurality of test cases from the selected test cases.

11. (Previously Presented) A method as recited in claim 10, wherein the user input received by the harness includes input from the user indicating selection of the test module upon the user selecting a test module, the plurality of test suites that comprise the test module, excluding any test cases determined to be deselected are selected.

12. (Previously Presented) A method as recited in claim 4, wherein the step for traversing further includes executing the plurality of test cases on a thread pool comprising one or more threads.

13. (Original) A method as recited in claim 12, wherein the step for traversing further includes copying a selected test case across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

14. (Previously Presented) A method as recited in claim 12, wherein the step for traversing further includes executing a selected test case on one of the threads.

15. (Currently Amended) A computer program product for implementing within a computer system a method for testing a computer program to determine whether the computer program processes as intended, the computer program product comprising:

computer readable medium for providing computer program code means utilized to implement the method, wherein the computer program code means is comprised of executable code for implementing the acts of:

receiving user input that specifies one or more filenames to identify one or more program modules storing plurality of test cases of interest, each comprising a set of instructions for testing a feature of the computer program ~~through a language and format independent interface;~~

initiating execution of a connector to scan for and discover the plurality of test cases of interest that are stored in the program module and to organize the plurality of test cases of interest into a test case hierarchy, wherein the connector is initiatable by a harness client by calling methods of an extraction component class that is implemented by the connector using COM technology;

receiving user input indicating that at least two of the plurality of test cases of interest in the test case hierarchy are the selected test cases to be executed on the computer program;

scanning for the plurality of test cases of interest that are stored in the one or more program modules;

extracting the plurality of test cases of interest from the program module;

organizing the plurality of test cases of interest into the test case hierarchy;

interfacing with the selected test cases by calling methods of a test case component class that is implement by the connector using COM technology such that the test case class exposes a language and format independent interface in the test case hierarchy that allows a harness to recognize and executereceive the selected test cases regardless of the language or format in which the plurality of test cases of interest was developed;

traversing the test case hierarchy; and

executing the plurality of test cases of interest on the computer program, such that a first test case written in a first language and a second test case written

in a second, different language are each received ~~executable~~ by a harness because ~~of~~ through the same language and format independent interface.

16. (Original) A computer program product as recited in claim 15, wherein the step for traversing is performed by the harness.

17. (Original) A computer program product as recited in claim 15, wherein the step for interfacing is performed by one or more connectors.

18-19. (Canceled)

20. (Previously Presented) A computer program product as recited in claim 15, wherein the plurality of test cases executed on the computer program are selected by a user through a user interface provided by the harness client.

21. (Previously Presented) A computer program product as recited in claim 20, wherein the step for traversing further includes executing the selected test cases on a thread pool comprising one or more threads.

22. (Original) A computer program product as recited in claim 21, wherein the step for traversing further includes copying a selected test case across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

23. (Previously Presented) A computer program product as recited in claim 21, wherein the step for traversing further includes executing a selected test case on one of the threads.

24. (Currently Amended) In a computer system that includes a computer program to be tested, a program module of a plurality of test cases written in any format or language for testing the computer program, a harness for executing a plurality of test cases on the computer program, a harness client for receiving user input, and one or more connectors for interfacing test cases with the harness, a method for testing the computer program to determine whether the computer program processes as intended, the method comprising steps for:

specifying one or more filenames for identifying one or more program modules storing a plurality of test cases, each comprising a set of instructions for testing a feature of the computer program ~~through a language and format independent interface;~~

identifying the plurality of test cases within the one or more program modules;

translating the identified plurality of test cases into a test case hierarchy that includes the plurality of available test cases, a first test suite, a second test suite, and a test module, the first test suite including at least two of the plurality of the available test cases, the second test suite including at least another one of the plurality of the available test cases, and the test module including the first and second test suites, the test module being executable by the harness;

indicating that the plurality of test cases in the test case hierarchy is to be executed on the computer program;

~~providing an a language and format independent interface to in the test case hierarchy, wherein the harness utilizes the language and format independent interface in order to recognize and execute receive the plurality of test cases regardless of the language or format in which the plurality of test cases was written, wherein the language and format independent interface includes a test case component class that is implemented by the connector using COM technology and includes methods that the harness calls to receive the test case hierarchy; and~~

running each of the plurality of test cases in the test case hierarchy to test the computer program, wherein a first test case written in a first language and a second test case written in a second, different language are each received by the harness executable on the computer program because of through the same language and format independent interface.

25. (Original) A method as recited in claim 24, wherein the act of executing is performed on a thread pool comprising one or more threads.

26. (Previously Presented) A method as recited in claim 25, wherein the act of executing is further performed by executing a selected test case on one of the threads.

27. (Previously Presented) A method as recited in claim 25, wherein the act of executing is further performed by copying the one or more selected test cases across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

28. (Canceled)